

Pioneer Trail Research Report #4

December 20, 1994

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Steve F. Russell

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Pioneer Trail Research

Report #4

December 20, 1994

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MAP SET - FOLDER A108C

BIRD-TRUAX TRAIL
(BTT)
TREAD MAP SET

This map set documents the tread location of the
Bird-Truax Trail from Musselshell Meadows to
Lolo Pass.

Research for the location of the historic
Bird-Truax Trail was conducted during the years
1985 to 1994 by Steve F. Russell, Associate
Professor, Iowa State University, Ames, Iowa
50011. Journal records from the National Archives
in Washington, D.C. were used as the basis for the
initial tread location. Corrections and detailed
tread locations were determined by field
explorations during those summers. Computer and
map research was conducted during the winters.

NOTICE
SPECIAL EDITION MAP

This tread map was distributed to the Nez Perce Tribal Executive
Committee, the Clearwater National Forest, and the Idaho State
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INTRODUCTION

This map set documents the precise location of the Bird-Truax Trail Tread of 1866. The tread location is recorded on photocopies of 7.5 arc-minute topographic maps from the U. S. Geological Survey. Existing tread is marked with small dots. Tread that has not been discovered or has been obscured by road building or logging is marked with small open circles. Mile markers show the distance eastward along the trail starting from the crossing of Musselshell Creek and ending at Lolo Pass, a total distance of 84.5 miles. This general route across the Bitter Root Mountains has existed for hundreds of years and has been called the Lolo Trail since the 1800s.

HISTORY OF THE ROUTE

The existence of the Lolo Trail spans many hundreds of years. To the Nez Perce, the route we now call the Lolo Trail was the *Khusahnah Ishkit*, or buffalo trail, to the hunting grounds in Montana. They used this trail to join with the Flathead tribe in the Bitter Root Valley and travel east with them to hunt buffalo in the Gallatin Valley and on the Musselshell River in Montana. The *Khusahnah Ishkit* was also used to travel to the fishing weirs on the upper Lochsa River. The route used by the Nez Perce stayed on the highest parts of the ridges unless a major obstacle such as a timber blowdown or rocky terrain or lack of nearby grass and water prevented it. There is also historical evidence that the Nez Perce routinely burned the tops of the ridges to make the going easier and to make the visibility better. Good visibility was important because the *Khusahnah Ishkit* was also used by the grizzly bear that were numerous in Clearwater country until the 1900s!

Written documentation of the existence of the *Khusahnah Ishkit* and its route began on Tuesday, September 10th in 1805. This is the day when the *Corps of Discovery*, under the joint command of Capt^s. *Meriwether Lewis* and *William Clark*, began their journey west from their Traveler's Rest Creek camp near Lolo, Montana to the Weippe Prairie near Weippe, Idaho. They documented their route with great care and detail and thus provided modern historians and archaeologists with a wealth of information. The explorers attempted to follow the Nez Perce buffalo hunting trail that was well established during their time, but they were not entirely successful so the original buffalo hunting trail and the *Lewis and Clark Route* differ for many segments.

The next newcomers to travel the Lolo Trail (after Lewis and Clark) were the beaver trappers. We have little documentation left by them and much work remains to be done in editing what information may be left. In the 1820s and 1830s, several fur companies, with hundreds of men, covered the entire Northwest U.S. in search of beaver. Ralph Space, in his book on the Lolo Trail, has briefly described a trip over the Lolo Trail in 1831 that was made by a party led by the fur trader, John Work. By the mid 1840s, most of the beaver in the northwest were gone along with many of the buffalo and most of the mountain (Bighorn) sheep. Thus, the Lolo Trail would experience a temporary lull in traffic.

In September of 1854, Lieutenant John Mullan travelled the Lolo Trail with a survey party as part of the explorations for a Pacific Railroad under the direction of Isaac I. Stevens. Mullan would report that the route was unsuitable because it was too rugged. A few years later, Mullan would lead the survey and construction of a military wagon road from Fort Benton, Montana to Walla Walla, Washington. He chose the Coeur d'Alene Pass and not the Lolo Pass for his route. Isaac Stevens became the first governor of Washington Territory but he was called to duty in the civil war and was killed.

Gold miners from the California gold fields worked their way north into the Clearwater

country in the late 1850s and early 1860s. When gold was discovered at Pierce, Elk City, and Florence, another "gold rush" began. Lewiston, Idaho Territory, quickly grew into a trade center for the miners and a wagon road (actually more of a pack trail for horses and mules) was constructed to Pierce City and the placer mines of Oro Fino and Rhodes Creek. The Pierce Cty. Wagon Road connected with the *Khusahnah Ishkit* at Weippe Prairie so the Lolo Trail was the main route between this area and Montana and it was frequently used. The gold miners and explorers of this historical period called the *Khusahnah Ishkit* the Northern Nez Perces Trail.

In the early 1860s, the merchants of Lewiston started a campaign to get the federal government to build a wagon road from Lewiston to Virginia City, Montana. Lewiston wanted to compete with Fort Benton, Montana and Corinne, Utah as a supply source for the gold fields of Montana. Finally, an appropriation of \$50,000 was made to build the road. In the spring of 1866, the wagon road survey commenced at Weippe Prairie. The route chosen by the civil engineer, George Nicholson, is the route that is most commonly recognized today as the Lolo Trail. It closely followed the *Khusahnah Ishkit* when appropriate, but was surveyed to the best grade possible for a wagon road. The trail was expertly graded in and out of the many deep saddles -- a remarkable feat considering the primitive equipment, rough country, and the heavy timber. Many times, as the author has been locating the trail, he has found its location by considering the route with the best grade -- even when it went along a very steep sidehill as it does west of Moon Saddle.

The construction crew cleared the right-of-way and built a pack trail on the surveyed route from Weippe Prairie to Lolo Pass. The coming of winter coupled with the high cost of labor and supplies in the gold country eventually doomed the project. Although the wagon road was never completed, a first class pack trail was constructed between Weippe, Idaho and Lolo Pass. This pack trail became the *Bird-Truax Trail* or the Lolo Trail of 1866.

The next well-documented use of the Lolo Trail was in 1877 during the Nez Perce war. The *Bird-Truax Trail* was used by chiefs Ap-push-wa-hite (Looking Glass), White Bird, Too-hul-hul-suit, and Joseph to lead a party of Nez Perce men, women, and children east into the Bitter Root Valley of Montana Territory. The Nez Perce were followed a few days later by a column of cavalry led by Major General Oliver Otis Howard. Some of the modern place names of the area have been introduced as a direct result of this conflict. The *Bird-Truax Trail* forms a segment of what is now called the National Historic *Nee-Mee-Poo Trail*.

Between 1898 and 1902, portions of the *Bird-Truax Trail* were travelled by Olin D. Wheeler as he worked to locate the *Lewis and Clark Route*. Although some of Wheeler's route location appears to be inaccurate, he has provided much valuable documentation.

The *Bird-Truax Trail* was still in use by all Lolo Trail travelers when, starting in 1907, the trail was opened and widened by the U.S. Forest Service. It is not clear from extant historical documents that the USFS made any changes in the location of the Bird-Truax tread but the trail today shows evidence of a few very minor changes. Some of these changes appear to have been made to shorten distances, such as "short cutting" a switchback, but at an increase in the grade. In these cases, the author believes that the steeper grades are generally the newer sections of trail.

In 1925, construction on a primitive road (*Lolo Motorway*) to replace the Lolo Trail was started at Lolo Hot Springs, Montana. It reached Powell Ranger Station in 1928. From Powell, it went north and joined the Lolo Trail at the Powell Junction of the Lolo Road. Construction on this primitive road was also started on the west end at Musselshell Meadows. When the two ends met late in the fall of 1934, the *Lolo Motorway* was completed and the usefulness of the historic Lolo Trail was temporarily at an end. Since 1934, most of the trail tread has had little use except by Elk,

deer, bear, and an occasional hunter, hiker, archaeologist, or historian. However, it is still remarkably easy to travel in most places and travelling it amply rewards the effort.

HISTORY OF THE BIRD-TRUAX TRAIL

The U.S. Congress, at the urging of the citizens of Lewiston, appropriated \$50,000 for the building of a wagon road from Virginia City to Lewiston. The search for a Superintendent and Disbursing Agent began in the spring of 1865. Several men were recommended for the position. Among them were: George M. Pinney, John Connell, Daniel H. Fowler, Wellington Bird, and Dr. A. W. McClure.

Initially, John Connell of Toledo, Iowa was appointed to the position but had to resign in April of 1865 because of poor health due to a war injury. In May of 1865, Wellington Bird of Mount Pleasant, Iowa wrote James Harlan, Secretary of the Interior, to decline an offer of the position. However, Secretary Harlan persisted and in a letter dated January 12, 1866, Wellington Bird accepted the position.

On January 18, 1866, the governor of Idaho Territory, "Calib Lyon of Lyonsdale", sent the following memorial to James Harlan, Secretary of the Interior:

Council Memorial No. 4

*To the Honorable
the Secretary of the Interior of the United States,*

Your memorialists, the legislation Assembly of the Territory of Idaho would respectfully represent,

That Whereas an appropriation of the sum of Fifty thousand dollars for a military road from Virginia City in the territory of Montana to Lewiston in the Territory of Idaho, to be expended under the direction of your department.

And Whereas Lewiston is situated at the present head of navigation on Snake River and connected by a good wagon road with the City of Walla Walla and the Columbia River.

And Whereas, a good route exists from Lewiston by the way of the Lo Lo Fork of the Clearwater River to the summit of the Bitter Root mountains, thence by the way of the Lo Lo Fork of the Bitter Root River to intersect the Mullan Military Road near Hellgate Road.

That a good Wagon Road is already established on said route, seventy miles and a Nez Perce Indian Trail extends over the remaining distance, over which Pack Trains have often traveled in the winter months. That said route is an almost direct line from Walla Walla to the point of intersection with the Mullan Road, through a natural pass, peculiarly fitted for making a good road at a moderate expense, thereby shortening the distance from Walla Walla to the point of intersection, one hundred and sixty miles, and opening a line of communications for the rapidly increasing travel and commerces of the immense tract of country bordering upon the sources of the Columbia and Missouri Rivers; over a route easily kept in repair, and capable of being traveled all seasons of the year.

And Whereas, the Mullan Road notwithstanding the immense outlay of money expended in its construction, can never be traveled, even by Pack Trains at the time of the breaking up of winter, in consequence of the low and marshy character a portion of the route, and notwithstanding the expenditure of two hundred and thirty thousand dollars, cannot now and has not been traveled with loaded wagons for a long time.

Your memorialists, would therefore request that said appropriation be expended upon said

route from Lewiston to Virginia City by the way of the Lo Lo Forks of Clearwater and Bitter Root rivers. And that the construction of said road be commenced at Lewiston and continue eastward, And your memorialists as in duty bound will ever pray.

*Passed the House January 5th, 1866
Alex Blakely
Speaker House Representatives*

This memorial heralded the beginning of the wagon road project and also the beginning of Wellington Bird's misfortune.

Bird arrived in Idaho Territory in May of 1866 and started his reconnaissance over the route of the "*Lou Lou Fork Trail*" at the end of May. He wrote Sec. Harlan a letter on May 28th from "Shultz or Bell's Ferry" (now Greer, Idaho) to inform him of the possible routes, the reasons for the delays (snow), and the difficulties of the task at hand.

The month of June was very stormy and rainy and Bird's party remained at Musselshell Meadows until the 26th when they could proceed eastward. He was accompanied by Major Truax, (wagon road builder), Col. Craig (a guide), Prof. Oliver Marcy (the physician and geologist), George Nicholson (surveyor and engineer), and Ta-Tu-tash (Nez Perce guide). They arrived at Lolo, Montana on July 7th.

Bird returned to Lewiston and commenced to organize the labor force and procure the rest of the needed supplies. In his July 31st letter to Col. Simpson, Chief of Engineers, he reports "*I have.. at present, a considerable force actively engaged under the direction of Major Truax while Mr. Nicholson is actively engaged in making the necessary surveys.*" In his September 15th letter to Simpson, Bird reports having over 60 men employed with the work of the wagon road. In another report by Bird, the following is recorded:

*Memorandum of an outfit for making a wagon road in Montana & Idaho Territories
(supplies for 60 men six months)*

*One Surveyor and Engineer
" Guide
" Physician and Geologist
" Wagon Master
" assistant wagon master
" Carpenter
" Blacksmith
two night Herders
Fifty men for cooks, Drivers & laborers*

Bird realized early that he would not be able to build the wagon road called for in the congressional appropriation. His compromise was to build a good pack trail to a wagon road grade as stated in his July 31st report:

"The money I have at my command will not build a wagon road over these mountains, will not near do it, but it will pay the expenses of exploring and locating a road, and will also cut out and clear a trail of ten or twelve feet wide, over which pack trains can be taken from Lewiston to the Valley of the Bitter Root, and from thence, roads are already open to Virginia City and every other part of Montana of any present interest."

Bird repeated his assertion in his September 15th report:

"I informed you in a former communication that having concluded my explorations in a general way of the mountainous region lying between this point and the bitter Root Valley, the latter part of July, I had resolved to at once commence work in opening a pack trail on a wagon road grade on what is known as the Lou Lou Fork route. "

That fall, a trail was constructed to a wagon road grade from Musselshell Meadows to Lolo Pass, however, the wagon road was never built.

In a letter to Brig. Genl J. H. Simpson, Chief of Engineers, Interior Dept., Washington City, D.C., dated February 19, 1867, Mr. Bird offered the following reasons for the inability to complete the wagon road:

"By reference to my report and that of Engineer Nicholson, it will be seen that the country across which this road is being constructed is very difficult, being mountainous and uninhabited for a distance of one hundred and fifty miles, covered by a dense and unbroken pine forest for about one hundred miles. The western terminus, where the heavy work began, is some 80 miles from Lewiston, the nearest point for supplies. From this point eastward I completed the removal of the timber for a roadway a distance of 85 or 90 miles, leaving from ten to fifteen miles yet to be cut through the eastern side of this great forest, when I was compelled to suspend work on account of the inclemency of the weather."

In the fall of 1866, Wellington Bird left northern Idaho to return to Iowa for the winter. He appointed Major Truax to be in charge of the project. His unauthorized departure caused considerable unhappiness within the Department of the Interior and he was taken to task to justify his actions. In November of 1866, he was accused of malfeasance in office by O. B. Porter, Revenue Inspector, 1st district Iowa and a flurry of letters ensued in which Mr. Bird tried to justify his actions. In a December 31, 1866 letter to Brig. Genl J. H. Simpson, Chief of Engineers, Washington D.C., he wrote a long letter explaining his actions. The following is an excerpt from that letter:

"I am mortified to know that reports are in circulation and have been forwarded to the Interior Dept. censuring or charging me with fraud and dishonesty in keeping my accounts.

I am able to make all clear and satisfactory for your department if proper opportunities are afforded me and trust no hasty action will be taken in the matter until I can have an opportunity to set myself right.

It was not expected that Major Truax would do any work under the arrangement I made with him until next spring, nor until the arrangement with him was sanctioned by your department. I have therefore after reading the letter of the Hon. Secy of the Interior informing me that any arrangement of that kind was not authorized informed the Major to do nothing until he heard from me further."

In his letter to Simpson dated February 19, 1867, Mr. Bird offered the following reasons for leaving Major Truax in charge:

"The amount of appropriation at this time unexpended was small, not sufficient in amount to justify the government in paying my salary and contingent expenses during the period that must intervene before the work could be resumed next spring. Had I adopted this course, I felt that I would be justly liable to the censure of my superiors when, by returning to the states, the government would be relieved from this useless expense.

The employment of Major Truax was conditional being subject to the approval of the

Department. That he was a proper person to be thus entrusted with the prosecution of the work I had conclusive evidence. He was in my employ during the summer as general overseer of labourers and workmen. I consequently know him to be capable, energetic, reliable and efficient, being a capable practical surveyor and Engineer, having surveyed several years for the government of Oregon. I also know that he had the confidence of the inhabitants of the country. He had served several years in the Army, and was Commander of the Military Post at Fort Lapwai. He was a man of property, was a permanent resident engaged in business and personally interested in having the road made practicable for travel. I am also satisfied that Engineer Nicholson will fully and freely endorse his appointment, or the arrangements I have made. Indeed if I may be allowed to say as much, I would give it as my opinion from my personal knowledge that the government can find no truer safer man in the Territory of Idaho in whom to confide any public trust than Sewall Truax.

I need only add that I am conscious of having done what seemed to me would best promote the public interest, and accord with the design of congress in making the appropriation, and that my action was fully approved by the residents of the country. The parties most deeply interested in the success of the enterprise, and I venture to hope, on a full examination, will meet with your approval, General, as well as that of the Department."

It is not clear from the National Archive records that Mr. Bird was ever cleared of the charges or that the Department of the Interior was finally satisfied with the work that was done. A letter dated April 29, 1870 to the Department of the Interior from Capt. D. M. Sells, Indian Agent at the Lapwai Indian Agency, states that the unexpended balance of \$8,025.24 exists for the Lewiston Virginia City Wagon Road account. He recommends using it to improve the wagon road between Lewiston and the Lapwai Valley.

The records on the Lewiston Virginia City Wagon Road end with a letter dated September 10, 1870 to E. S. Parker, Commissioner Indian Affairs, Washington D.C. In this letter, a Captain C. F. Garrett is recommended for the position of special agent to disburse \$8525 on the Virginia and Lewiston Road. It was earlier recommended that a portion of this money be used to put in a "grade up the mountain distant from Lapwai Valley about 15 miles". This grade would start in the vicinity of Culdesac.

RESEARCH METHODOLOGY

In 1985, the author began a research effort to document the trails of the Lolo Trail System. This included gathering documents from the National Archives in Washington D.C. as well as extended summer field trips along the route of the trail in Idaho. At first, he focused on the Lewis and Clark route but soon changed to the Bird-Truax Trail when he discovered that it could be well documented from historical sources and its tread could still be located on the ground. Since 1986, he has travelled every summer to Idaho to hike the ridges where the trail is located and has prepared detailed documentation on its location and history.

In the late 1980s, the author started working with the Clearwater National Forest and the Nez Perce Tribe on issues of preservation and management of the Lolo Trail System. This work led naturally to an expansion of the research goals to include: 1) accurate location of all the trail treads of the Lolo Trail System, 2) learning and documenting the history of the Clearwater country and, 3) preservation, documentation, and management activities on the Clearwater N. F. This effort has resulted in the production of approximately 18 megabytes of computer files and 46 map sets documenting the various aspects of the trail system.

The author has been able to do this trail research year around. In the winter, maps and

documents from the National Archives are analyzed. Computer analysis of the archives information is used to correct errors and make predictions about the location of the trails. All information about the trail systems is recorded in word processor and spreadsheet computer files. In the summer, the maps and information prepared the previous winter are used to locate the trail treads. This extensive field work has been essential to the success of this work.

HISTORIC PRESERVATION

The Lolo Trail routes, historical camping places, and removable artifacts are outstanding archaeological treasures of western U.S. history that deserve our most diligent preservation efforts. The actual routes themselves, and not just the archeological sites and artifacts, should be preserved. The author believes that many archaeologists, historians, and local residents are unaware of how important the Lolo Trail routes have been and how amazingly well they have been preserved for much of their length. Successful cooperative efforts will produce important historical and archaeological preservation that applies to the Nez Perces, Lewis and Clark, early explorers and traders, gold miners, early commerce, the first railroad explorations, the very early USFS, and several generations of Clearwater Country residents. Future historians and archaeologists will find the Lolo Trail to be an excellent resource for research on the groups mentioned above.

From the point of view of historical preservation, any removal of artifacts or route changes to the trail constitute a type of vandalism. It is a fact of human nature that removable artifacts along the trail will rapidly disappear if the trail is cleared and well-marked. There is no reasonable way this can be avoided. Many are obvious and can be easily removed. If the exact location of camping places and other archaeological sites are publicly identified, they will first be combed with metal detectors and then probed and dug up by more determined "treasure hunters". Items along the trail that are easily removed are old signs, telephone wire, insulators, traps, etc. Equally inappropriate are the revisions and "improvements" caused by well-meaning government agencies and historical groups. For example, the USFS has proposed the rerouting of sections of the *Bird-Truax Trail* for the sake of "improving the grade and preventing erosion". This must not be done because it destroys the very things that need to be protected most -- the trail routes. There are only a very few places where the *Bird-Truax Trail* does not have an excellent grade. After all, it was surveyed as a wagon road and a very commendable job was done. The 1866 route saw considerable use for almost 70 years and 95 percent of it has survived quite nicely until recent years. Rerouting of the 1866 trail should be proposed only when a very strong case can be made that the benefits will far outweigh the permanent damage to the historic route. Another inappropriate activity is uninformed trail clearing by clubs and historical groups. They can be misled into clearing a game trail or other minor trail not actually on the route. This has occurred west of Camp Martin and west of Cayuse Junction.

The USFS practice of hiring contract trail crews to clear trails should not be used on the Lolo Trail routes. The author recommends that the trail be surveyed only by full-time, permanent, career USFS personnel that have had special training in both archaeological preservation and federal policy on preservation. This training could be in the form of short courses given by USFS archaeologists and other trained professionals. The use of untrained, temporary, minimally-supervised trail crews will make it nearly impossible to properly protect artifacts.

In summary, the actual trail routes should be preserved and are the easiest to preserve because hunters, hikers, and other public groups seldom do significant trail rerouting. It is only government agencies that have the resources to cause this type of damage and the power to prevent it. The next easiest to preserve are the camping places and archaeological sites because their precise locations do

not have to be made public. General references to their location are adequate for interpretive guides. It is virtually impossible to protect the removable artifacts and it is best to have trained survey personnel copiously document them, remove them, and display them in a well-established museum.

PRESERVATION ACTIVITIES AND TECHNIQUES

Physical Preservation. This is the most appealing in the short term but it is unrealistic to expect to physically preserve the routes for the long term. The press of humanity and economic livelihood will eventually affect even the remote Lolo Trail. The easiest to physically preserve are the actual routes themselves. This would require that no rerouting or changes of any kind be made. Trail clearing and erecting of signs would be held to a very minimum. Archaeological sites would not be identified except in restricted documents and definitely not with signs. The location of removable artifacts would not be publicly disclosed and those that would be easy to find would be properly documented, carefully removed, and preserved in a well-established public museum. The careful marking of each route must be done in such a way as to be as permanent as possible and yet as unobtrusive. Such methods as blazes, ribbons, and signs do not last long enough. Research will need to be done to determine an acceptable method. In the interim, a restricted number of carefully designed aluminum markers can be used for route segments away from the *Lolo Motorway*.

Route Documentation. The author is interested in the preservation of the Lolo Trail both physically and using documentation techniques. The documentation techniques he proposes will provide the public and researchers with information that will be enjoyable and useful for many generations to come. For the past few years he has been engaged in documenting the routes by topographic survey. Foremost in his present research work is the very accurate location of the routes, 1866 place names, and geographical features on 7.5' topographic maps. He also has been doing some video and much color still-photo documentation and has hundreds of photos. He would also like to begin efforts to initiate and complete all topographic, photographic, video, and radionavigation surveys before any more irrecoverable physical changes occur on the existing trails and the *Lolo Motorway*.

Topographic Survey. This is a low-cost method the author has developed for determining the location of the Lolo Trail routes on a 7.5' topographic map. Applying this method, he walks a segment of the route with a topographic map, compass, pace counter, and barometric altimeter. Using these tools, and the *Lolo Motorway* and prominent landmarks as a guide, he documents the precise route on the topographic map. This method has yielded excellent results but a radionavigation survey is needed to improve the precision.

Radionavigation Survey. This reasonable-cost method is the next logical step in documenting the routes with a high degree of accuracy. The advantage of radionavigation methods over a manual survey is that they are lower cost. Currently, the fastest and most accurate way to do surveys is to use NAVSTAR-GPS.

Historical Preservation through Photography. In recognition of the fact that "perfect preservation" is impossible, and physical preservation is imperfect, the author proposes a methodology for preservation using documentation and photography. If properly done, this will provide many future generations with the opportunity to take a "trip" on the old Lolo Trail. In addition to copious verbal descriptions of the trail and landmarks, photographic and video surveys should be done both east and west. The author recommends that all the following be used:

1. Still photo, color.
2. Still photo, archival black & white.

3. Video tape.
4. Audio tape narratives.
5. High-resolution aerial photo survey.

In fact, the photographic, video, and audio surveys could be done more than once by different organizations or agencies. Doing it more than once would provide a richer diversity of cultural and historical perspectives.

Steve F. Russell

Dr. Russell, a native of Idaho and Montana, is an Associate Professor of Electrical Engineering at Iowa State University in Ames, Iowa. He was born in Lewiston, Idaho and spent his growing years at Lewiston, Weippe, Orofino, Lochsa Lodge (Powell), the Bitter Root Valley, and White Sulphur Springs, Montana. He earned a Bachelor of Science degree in Electrical Engineering at Montana State University in Bozeman. Upon graduation, he moved his family to Iowa where he worked for Collins Radio Co. in Cedar Rapids and did off-campus graduate work at Iowa State. After earning a PhD at ISU, he continued as a practicing engineer in industry for another eight years until, in 1984, he decided to return to ISU.

Steve's family ties to Idaho and Montana remain strong and he and his family return each year for several weeks in the summer. It is these trips that afford him the opportunity to "pound the brush" in search of faint segments of the remaining tread of historical trails and wagon roads.

It was in 1984 that Steve started his avocation of pioneer trail research. His initial interest in the tread followed by Lewis and Clark eventually expanded to include all the major pioneer trails of Western Montana and Northern Idaho. For the Montana Statehood Centennial Year, 1989, he prepared map displays for the Meagher County Historical Association, the Bitter Root Historical Society, and St. Mary's Mission. His 1989 centennial story, "Traveling the Carroll Trail" appeared in the June 1, 1989 edition of the Meagher County News and received a second place award for Best Single Centennial Story in the Montana Better Newspaper Contest.

For most of his research, he has concentrated his efforts on the Lolo Trail System that encompasses the trail treads now known as the Northern Nez Perces Trail, the Lewis and Clark Trail, the Nee-Mee-Poo Trail, the Bird-Truax Trail, and the Virginia City Lewiston Wagon Road. Steve's goal has been to precisely locate the extant trail tread and accurately document its location and existence. His research method involves computer analysis of archival records, map and navigation analysis, and field exploration. During his many years of field work, he has taken hundreds of photographs of the trail treads and various sites along the trail. Today,

